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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,980	01/25/2007	Harald Haas	07468.0191USWO	8118

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EXAMINER

LEBASSI, AMANUEL

ART UNIT	PAPER NUMBER
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2617

NOTIFICATION DATE	DELIVERY MODE
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03/18/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/576,980	Applicant(s) HAAS ET AL.	
	Examiner AMANUEL LEBASSI	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Claim 18 objected to because of the following informalities: Claim 18, on line 4, please replace "a data" with --the data--

Claim 18, on line 8, please replace "receiving station" with --receiving station, in the plurality of receiving stations,--

Claim 18, on line 10, please replace "transmitting station" with --transmitting station, in the plurality of transmitting stations,--

Claim 18, on line 12, please replace "transmitting station" with --transmitting station, in said plurality of transmitting stations,--

Appropriate correction is required.

Claim Rejections - 35 USC § 101

The claims have been checked and are deemed by the examiner to be statutory.

Information Disclosure Statement

1. The information disclosure statement filed 06/09/2006 has been received and placed in the file of record.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 18-25, 27-33 are rejected under 35 U.S.C. 102(b) as being unpatentable over Masui et al. **US 20010033559**.

Regarding claim 18 and 30, Masui discloses a communications network comprising a plurality of transmitting stations and receiving stations for transmitting and receiving signals (**paragraph [0005], where group of terminals transmit data therefore plurality of transmitting stations and receiving station**), the transmitting stations being adapted for transmitting a data signal as a series of data packets (**paragraph [0011] where data packets are transmitted from mobile terminals to base station and vice versa**), wherein a data packet is scheduled to be transmitted by a transmitting station by use of an available transmission resource, and the receiving stations being adapted for transmitting a reservation indicator for reception by transmitting stations (**paragraph [0014] -where each mobile terminal having a request for data transmission to the base station performs a reservation packet transmission control in accordance with the busy tone signal therefore the receiving stations being adapted for transmitting a reservation indicator for reception by transmitting stations - paragraph [0040], where group of terminals transmit data therefore plurality of transmitting stations**). Masui discloses wherein the reservation indicator transmitted by a receiving station in

response to a reception without unacceptable interference of a first data packet from a first transmitting station indicates to the first transmitting station that the receiving station has received the first data packet without unacceptable interference (**paragraph [0047], where the base station transmits a control packet (reply packet) to the request transmitting terminal, thereby specifying a traffic channel therefore that the receiving station has received the first data packet without unacceptable interference**), and indicates to a second transmitting station intending to transmit a data packet and also hearing the reservation indicator that a data transmission resource has been reserved by the receiving station for reception of the next data packet of a data signal from the first transmitting station transmitting the data signal and that the data transmission resource is not allowed to be used by the second transmitting station for a transmission of a data packet by the second transmitting station (**paragraph [0014], where each mobile terminal having a request for data transmission performs a reservation packet transmission control in accordance with the busy tone signal, therefore a reservation indicator**) , and wherein not hearing the reservation indicator by the first transmitting station indicates to the second transmitting station that a data transmission resource has not been reserved and can be used by the second transmitting station for transmitting the data packet / or indicates to the first transmitting station that the last data packet transmitted by the first transmitting station has not been received with acceptable interference from the first receiving station (**paragraph [0005],**

where each of the mobile terminals is notified of transmission timing to be used on an assigned traffic channel through a reply packet and paragraph [0054] where each radio terminal determines that its reservation packet would have collided with any other reservation packet on the reservation channel if a reply packet destined thereto has not been returned in a predetermined time period after the radio terminal had sent the reservation packet).

Regarding claim 21, Masui discloses wherein a data transmission resource for the transmission of data packets of a signal is selected based on the reservation indicator (paragraph [0005] - **reservation based access control**).

Regarding claim 22, Masui discloses data packet indicating, whether at least one further data packet shall be transmitted to the receiving station in the same data transmission resource (paragraph [0097]).

Regarding claim 23, Masui discloses wherein the receiving station, to which the first transmitting station transmits a data packet, transmits the reservation indicator indicating that the data transmission resource has been reserved for reception of at least one further data packet when the continue indicator indicates that at least one further data packet shall be transmitted in the

same data transmission resource by the first transmission station (**paragraph [100]**).

Regarding claim 24, Masui discloses wherein the data transmission resource is a data time slot, a data sub-carrier, a data carrier and/or a data code (**abstract, where time slot to be used to each radio terminal requesting a reservation**).

Regarding claim 25, Masui discloses wherein the network is a cellular communications network, an ad-hoc communications network or a hybrid cellular/ad-hoc communications network (**see Fig. 1, cellular network**).

Regarding claim 27, Masui discloses wherein the transmitting stations are adapted for checking the validity of a received reservation indicator by determining an actual path gain for the received reservation indicator and by comparing the actual path gain to an expected path gain (see above).

Regarding claim 28, Masui discloses wherein the transmitting stations are adapted for judging a received reservation indicator as invalid when the actual path gain is substantially different from the expected path gain (**paragraph [0014]**).

Regarding claim 29, Masui discloses wherein the transmitting stations are adapted for judging a received reservation indicator as invalid, when a percentage error between the actual path gain and the expected path gain is larger than a predetermined threshold of 5% (see above).

Regarding claim 31, Masui discloses a receiving station for use in a communications network comprising a plurality of transmitting stations and receiving stations for transmitting and receiving signals (**paragraph [0040], where group of terminals transmit data therefore plurality of transmitting stations and receiving station**). Masui discloses a receiver for receiving a data packet of a series of data packets of a data signal from a first transmitting station, via a transmission resource (**paragraph [0015], where base station reservation packet**), and a transmitter for transmitting a reservation indicator for reception by the first transmitting station, in response to a reception without unacceptable interference of a first data packet from the first transmitting station by the receiving means, the reservation indicator indicating that a data transmission resource has been reserved by the receiving station for reception of the next data packet of the data signal from the first transmitting station transmitting the data signal (**paragraph [0014], where each mobile terminal having a request for data transmission performs a reservation packet transmission control in accordance with the busy tone signal**) wherein the

Art Unit: 2617

receiving station is adapted to not transmit the reservation indicator, when the last data packet transmitted by the first transmitting station has not been received with acceptable interference by the receiving means (**see Fig. 14A and 14B where busy tone therefore the receiving station is adapted to not transmit the reservation indicator**).

Regarding claim 32, Masui discloses a transmitting station for use in a communications network comprising a plurality of transmitting stations and receiving stations for transmitting and receiving signals, comprising a transmitter for transmitting a data packet of a series of data packets of a data signal to a receiving station using a transmission resource (**paragraph [0040], where group of terminals transmit data therefore plurality of transmitting stations**). Masui discloses a receiver for receiving a reservation indicator transmitted from the receiving station, the reservation indicator indicating to the first transmitting station that the receiving station has received the first data packet without unacceptable interference (**paragraph [0014], where each mobile terminal having a request for data transmission performs a reservation packet transmission control in accordance with the busy tone signal**) and wherein the transmitting means is adapted to transmit a next data packet of the series of data packets using the available transmission resource, when the reservation indicator is received by the receiving means, (**paragraph [0011], where data packets are transmitted from mobile stations**) and

Art Unit: 2617

wherein the transmitting means is adapted to not transmit a next data packet of the series of data packets using the transmission resource, when the next data packet is not received by the receiving means (**see Fig. 14A and 14B where busy tone therefore the receiving station is adapted to not transmit the reservation indicator**).

Regarding claim 33, Masui discloses a transmitting station for use in a communications network comprising a plurality of transmitting stations and receiving stations for transmitting and receiving signals (**paragraph [0040], where group of terminals transmit data therefore plurality of transmitting stations**). Masui discloses a transmitter for intending to transmit a data packet of a series of data packets of a data signal to a receiving station using a transmission resource (**paragraph [0040]**). Masui discloses a receiver means for hearing, whether a reservation indicator assigned to the transmission resource is received, the reservation indicator indicating to the transmitting station that a receiving station has received a data packet without unacceptable interference from a different transmitting station, so that the data transmission resource is not allowed to be used by the transmitting station for a transmission of a data packet (**paragraph [0014], where each mobile terminal having a request for data transmission performs a reservation packet transmission control in accordance with the busy tone signal**). Masui discloses wherein the transmitting means is adapted to use the transmission resource, when the

Art Unit: 2617

reservation indicator is not heard by the receiving means (**see Fig. 14A and 14B where busy tone therefore the receiving station is adapted to not transmit the - reservation indicator).**

Regarding claim 34, Masui discloses a method of operating a receiving station, comprising receiving a data packet of a series of data packets of a data signal from a first transmitting station, via a transmission resource (**paragraph [0015], where base station reserves reservation packet as group of terminals transmit data).** Masui discloses transmitting a reservation indicator for reception by the first transmitting station, in response to a reception without unacceptable interference of a first data packet from the first transmitting station, the reservation indicator indicating that a data transmission resource has been reserved by the receiving station for reception of the next data packet of the data signal from the first transmitting station transmitting the data signal (**paragraph [0014], where each mobile terminal having a request for data transmission performs a reservation packet transmission control in accordance with the busy tone signal),** wherein the reservation indicator is not transmitted, when the last data packet transmitted by the first transmitting station has not been received with acceptable interference in the step of receiving means (**see Fig. 14A and 14B where busy tone therefore the receiving station is adapted to not transmit the reservation indicator).**

Regarding claim 35, Masui discloses a method of operating a transmitting station, comprising: transmitting a data packet of a series of data packets of a data signal to a receiving station using a transmission resource (**paragraph [0040], where group of terminals transmit data therefore plurality of transmitting stations**). Masui discloses receiving a reservation indicator transmitted from the receiving station, the reservation indicator indicating to the first transmitting station that the receiving station has received the first data packet without unacceptable interference (**paragraph [0014], where each mobile terminal having a request for data transmission performs a reservation packet transmission control in accordance with the busy tone signal**). Masui discloses transmitting a next data packet of the series of data packets using the available transmission resource (**paragraph [0011], where data packets are transmitted from mobile stations**), when the reservation indicator is received in the step of receiving, and wherein a next data packet of the series of data packets is not transmitted using the transmission resource, when the next data packet is not received in the step of receiving means (**see Fig. 14A and 14B where busy tone therefore the receiving station is adapted to not transmit the reservation indicator**).

Regarding claim 36, Masui discloses a method of operating a transmitting station **paragraph [0040], where group of terminals transmit data therefore**

plurality of transmitting stations). Masui discloses intending to transmit a data packet of a series of data packets of a data signal to a receiving station using a transmission resource (**paragraph [0040]**). Masui discloses hearing, whether a reservation indicator assigned to the transmission resource is received, the reservation indicator indicating to the transmitting station that a receiving station has received a data packet without unacceptable interference from a different transmitting station, wherein the data transmission resource is not allowed to be used by the transmitting station for a transmission of a data packet, when the reservation indicator is heard (**paragraph [0014]**, where **each mobile terminal having a request for data transmission performs a reservation packet transmission control in accordance with the busy tone signal**), and using the transmission resource, when the reservation indicator is not heard in the step of hearing **see Fig. 14A and 14B where busy tone therefore the receiving station is adapted to not transmit the - reservation indicator).**

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2617

4. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masui et al. US 20010033559 in view of Benveniste S 20020163933.

Regarding claim 26, Masui fails to disclose wherein the transmitting stations are adapted for checking, whether a received reservation indicator is a valid reservation indicator. However, Benveniste teaches wherein the transmitting stations are adapted for checking, whether a received reservation indicator is a valid reservation indicator (**paragraph [0079]**).

At the time of invention, it would have been obvious to modify the invention of Masui with teaching of Benveniste.

The motivation would be in order to improve the quality of Service (QoS) **paragraph [0008]**).

Allowable Subject Matter

5. Claim 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

1. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amanuel Lebassi, whose telephone number is (571)

Art Unit: 2617

270-5303. The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Amanuel Lebassi
/A. L/
3/10/2010

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617

Application/Control Number: 10/576,980
Art Unit: 2617

Page 15